# MYDNA



# USE YOUR DNA TO PERSONALIZE YOUR HEALTH

There are so many diet and exercise fads that have helped people shed weight and get buff. Why are they so different? Which one is right for you? Keto? Paleo? Atkins? Mediterranean? CrossFit? Hot Yoga?

WITH A SIMPLE CHEEK SWAB YOU CAN ELIMINATE THE GUESSWORK FROM YOUR NUTRITION AND EXERCISE.

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# IT'S TIME TO GET PERSONAL

In Biology class, we learnt that the DNA we inherited from our parents determines our physical traits like eye and skin colour. Now with the field of nutrigenomics - the study of how nutrition interacts with our genes - we have a wealth of knowledge about how our DNA affects a whole lot more than just our physical appearance. **Your DNA can now help you personalize your nutrition and exercise.** 

# THE SECRETS OF YOUR DNA CAN BE BOTH REVEALING & NUTRITIOUS

Armed with information about your DNA, you can put strategies in place to set yourself up for success and achieve your personal best.

#### APPETITE AND WEIGHT

FTO GENE

If you're a serial snacker then step away from the fridge and do a myDNA Nutrition & Fitness test. Your FTO gene could be to blame for your constant snacking and insatiable appetite! It's directly linked to appetite and has the strongest relationship with body size and risk of obesity.

#### FAT BURNING & WEIGHT

ADIPOQ GENE

The ADIPOQ gene produces a hormone called adiponectin that is involved in fat-burning and helps to control energy levels. Having lower levels of adiponectin is associated with a higher amount of fat around the abdominal area and is linked to obesity and other obesity-related conditions.

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#### BODY SIZE & WEIGHT REGAIN

MTIF3 GENE

MTHFR

The MTIF3 gene has been linked to increased body size, which is measured as Body Mass Index (BMI). Not only that, it can also reveal if you're likely to keep the weight off after you lose it!

#### FAT STORAGE



#### PPARG GENE

Your PPARG gene will reveal what your body does with any excess calories you consume. Does the body store them as fat for energy storage or will your body use them in other clever ways? Also known as the 'thrifty' gene, PPARG facilitates the fat storage process to save fats for future energy needs.

## LIKELY FOLATE (VITAMIN B9) NEEDS



The level of Folate (B9) in your body is influenced by the MTHFR gene. The correct functioning of the MTHFR enzyme ensures that a process called methylation is carried out properly. Methylation is a series of knock-on events happening in the cells which result in the ability of controlling many important functions in the body for normal health and development.

# LIVE A MORE PERSONALIZED LIFE

Finally, you can eliminate the guesswork for living a healthy life, because your DNA will provide a blueprint based on the genes you've inherited.

Forget the fads and live a more personalized life. You were made for this.

> "I was in great shape beforehand and now I feel even better... I will easily continue to stick with my plan because I know I'm going to have optimal health eating like this."

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# USE THE POWER OF DNA TO SMASH YOUR FITNESS GOALS

Whether you're trying to find the best workout style for you or are looking to optimize your performance on the track (and everything in between!) your DNA will unlock insights that can help.

#### DISCOVER HOW THE GENES BELOW CAN INFLUENCE:

POWER VS ENDURANCE

## STAMINA

**RECOVERY TIME** 

#### **INJURY RISK**

#### MUSCLE POWER

**ACTN3 GENE** 



The ACTN3 gene builds a protein that allows fast-twitch muscle fibers to work at full force. The amount of ACTN3 protein produced depends on your gene variation. The more ACTN3 protein your body produces though the greater your muscle power. It can also influence your ability to recover.

### MUSCLE STRENGTH

#### AGT GENE

The AGT gene produces a protein that helps your muscles contract properly and keep them strong. The more protein the muscle produces, the greater the strength and power. This protein is also thought to increase the production of fast-twitch fibers, which gives an advantage in power sports.

The IL6 gene produces a substance

it is released in response to exercise

and it promotes fiber regeneration,

after exercise. It is also thought that

contributes to better performance in

regulating how muscles recover

having normal IL6 gene function

called interleukin-6. In the muscle,

### MUSCLE ENERGY



#### AMPD1 GENE

Your muscle cells need energy to contract and move your body. The AMPD1 gene produces a protein that is involved in the production of energy utilized by the muscle. This energy is used during short bursts of exercise and is also important for combatting fatigue.

#### **ENDURANCE**



The PPARGC1A gene helps regulate how the energy is used in muscle cells. Higher energy levels are linked to increased aerobic fitness and the ability to exercise for longer periods of time. This gene also regulates the ability to grow slow-twitch muscle fiber which also contributes to increased endurance performance.



#### RECOVERY TIME

IL6 GENE



#### FLEXIBILITY & INJURY RISK

COL5A1 GENE

The COL5A1 gene produces the protein collagen 5 which affects the structure and function of collagen in ligaments and tendons. The amount of collagen and how it is packed influences ligament strength. It also influences the range of movement and flexibility of the joints.

"Now I know my genes, and I know what works, so this is something I can stick to for the long term."

#### **INJURY RISK**

#### COL1A1 GENE

power sports.



The COL1A1 gene builds the main collagen chain that affects the strength of ligaments, tendons and joint capsules. This strength affects the mobility of joints such as shoulders, knees and ankles. Higher levels of this type of collagen provide better supported joints and a reduced risk of injury.

"What I don't like is wasting my time, buying foods, doing exercise and not getting anywhere. This report takes the guesswork out."

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# LOVE YOUR HEART

Understanding your DNA can help with your heart health.

PROCESSING OF OMEGA-3 & OMEGA-6 (FATTY ACIDS)

FADS1 GENE

Your FADS1 gene can reveal how well your body processes Omega-3 and Omega-6 fatty acids. You may discover you need to add more to your diet to help with brain function, skin and hair growth, as well as our physical development and reproduction and the balance of blood triglycerides and cholesterol (lipids).

#### **PROCESSING OF DIETARY FATS**

LIPC GENE

The LIPC gene is involved in the way your body breaks down dietary fats and converts them into cholesterol and triglycerides. It can influence the overall balance of these fats in your blood, which in turn can affect your overall heart health.

#### **FIBER**

#### APOA5 GENE

The APOA5 gene will reveal if fiber-rich foods such as wholegrains are particularly beneficial for managing your triglyceride levels, which in turn can affect your overall heart health.

# PERSONALIZE YOUR CAFFEINE RITUALS AND FIND HAPPINESS IN YOUR DAILY GRIND

You can tweak your daily rituals to get the most out of your beloved brew.

#### **CAFFEINE'S EFFECT ON SLEEP**

#### ADORA2A GENE

ADORA2A controls how caffeine is received in the brain. A chemical called adenosine helps a person to feel sleepy. Caffeine can reduce our adenosine ability which can interfere with sleep. Caffeine affects individuals differently and studies have shown that variations in the likelihood of sleep quality, anxiousness and increased alertness are linked to ADORA2A gene results.

#### **CAFFEINE CONSUMPTION**

#### AHR GENE

The AHR gene enhances the activity of CYP1A1 and CYP1A2, which are the genes responsible for breaking down and processing caffeine in your blood. AHR is also involved in regulating inflammation and cellular processes related to immune function.

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### CAFFEINE METABOLISM

CYP1A1 & CYP1A2 GENES

The CYP1A1 and CYP1A2 genes both produce liver enzymes that help to break down caffeine. The area measured in this test is a section of DNA which is between these two genes.

While traditionally testing for CYP1A2 alone was believed to be the best measure of the rate of caffeine processing, new research suggests that testing the CYP1A1-CYP1A2 gene is more reliable.

"Before I was going to the gym, doing more than an hour of workouts lifting heavy weights but not getting any results. But with the myDNA program I now go to the gym 30 – 45 minutes and I get better results with it. So fantastic!"

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